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EXAMINER

PORTER, RACHEL L

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/911,846
Filing Date: July 24, 2001
Appellant(s): GENDRON ET AL.

MAILED

JAN 17 2007

GROUP 3600

Joseph Huebsch, Reg. No. 42,673
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9/14/06 appealing from the Office
action mailed 3/3/06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

The first issue is whether claims 1, 2, 8-13, 18-19 are rejected under 35 U.S.C. 103(a) as being **unpatentable** over Schnellinger et al. (USPN 5,642, 513). These rejections are not anticipation rejections. The rejection states that the lacking features **are obvious** over the prior art of record.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,642,513	SCHNELLINGER ET AL	6-1997
5,883,985	POURJAVID	4-1999
6,065,073	BOOTH	5-2000
6,195,465	ZANDI ET AL	2-2001
2002/00116506	DE LA HUERGA	8-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2.. Claims 1,2,8-13, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schnellinger et al. (USPSN 5642513).

(A) As per claim 1, Schnellinger et al. discloses a method and apparatus for storing and routing medical information asset comprising:

- a. a first data structure that stores control routing information (i.e. meta information) for control the routing of the asset through a medical imaging network. (Schnellinger et al., col. 3, lines 25-29, col.6, lines 5-6, lines 47-50.)
- b. a second data structure that stores medical imaging information received from a medical imaging modality. (Schnellinger et al., col. 1, lines 54-57, col. 2, lines 23-32, col. 5, lines 33-35, col. 11, lines 32-33.)
- c. a third data structure that stores pixel data received from the medical imaging modality. (Schnellinger et al., col. 5, lines 33-35, col. 2, lines 23-32, col. 11, lines 36-38.)

Schnellinger et al. does not expressly recite data structures that store patch data including modifications to the medical imaging information and error detecting/correcting information. Schnellinger et al., however, teaches on col. 5, lines 25-26, lines that the system includes security and error checking functions, allows for the compression and decompression of images, and on col. 11, lines 46-50 that image information can be previewed, adjusted, manipulated and composed. As such, it is readily apparent that data structures for patch data and error detecting/correcting are necessary for carrying these functions. It would have been obvious to one having ordinary skill in the art at the

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time of the invention to include stored data structures for data modification and error detecting/correcting information with the motivation of increasing the security and reliability of the system. (Schnellinger et al., col. 5, lines 25-26.)

(B) As per claim 8, Schnellinger et al. discloses a method for muting medical information comprising:

- a. storing routing information mapping to route within a network. (Schnellinger et al. col. 3, lines 25-30.)
- b. receiving stored information asset comprising: (i) asset control routing information (i.e. meta information); (ii) original medical information received from a medical imaging modality, and (iii) data including modifications to the medical imaging information. (Schnellinger et al., col. 3, lines 25-29, col. 6, lines 5-6, lines 47-50, col. 1, lines 54-57, col. 2, lines 23-32, col. 5, lines 33-35, col. 11, lines 32-33, lines 46-50.)
- c. selecting a route from the routing information based on the control routing information. (Schnellinger et al., col. 6, lines 5-9, lines 45-59.)
- d. forwarding the network communication according to the selected route.
(Schnellinger, col. 4, lines 25-26.)

Schnellinger et al. does not expressly recite the receiving of data structures that store patch data including modifications to the medical imaging information. Schnellinger et al., however, teaches on col. 11, lines 46-50 that image information can be stored, retrieved, previewed, adjusted, manipulated and composed. As such, it is readily apparent that the receiving of stored patch data including modifications to the medical imaging information is necessary for retrieving, adjusting, manipulating or composing

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the image information. It would have been obvious to one having ordinary skill in the art at the time of the invention to include the receiving of patch data having modifications of image information with the motivation of providing tool for adjusting and manipulating the image data. (Schnellinger et al., col. 11, lines 46-50.)

(C) As per claim 18, Schnellinger et al. discloses a system for routing medical information comprising:

a. computer retrievable storage medium for storing routing information mapping destinations to routes within a medical imaging network. Schnellinger et al. col. 3, lines 25-30, col. 5, lines 1-4.

b. routing module to route a stored information asset comprising: (i) asset control routing information (i.e. meta information); (ii) original medical information received from a medical imaging modality, and (iii) data including modifications to the medical imaging information. (Schnellinger et al., col.3, lines 25-29, col. 5, lines 58-62, col.6, lines 5-6, lines 47-50, col. 1, lines 54-57, col. 2, lines 23-32, col. 5, lines 33-35, col. 11, lines 32-33, lines 46-50.)

wherein the routing module selects a route based on the asset meta information to the routing information. (Schnellinger et al., col. 6, lines 5-9, lines 45-59, col. 4, lines 25-26)

Schnellinger et al. does not expressly recite the patch data including modifications to the medical imaging information. Schnellinger et al., however, teaches on col. 11, lines 46-50 that image information can be stored, retrieved, previewed, adjusted, manipulated and composed. As such, it is readily apparent the patch data

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including modifications to the medical imaging information is necessary for retrieving, adjusting, manipulating or composing the image information. It would have been obvious to one having ordinary skill in the art at the time of the invention to including the receiving of patch data having modifications of image information with the motivation of providing tool for adjusting and manipulating the image data. (Schnellinger et al., col. 11, lines 46-50)

(D) As per claim 2, Schnellinger et al teaches the medical information including patient information, group/element numbers associated with the data from the header (i.e. session information); image information and messages (i.e. study information) on col. 6, lines 45-46, lines 48-51, col. 9, lines 1-3, col. 8, lines 59-60, col. 11, lines 32-35.

(E) As per claim 9, Schnellinger teaches pixel data received from the medical imaging modality on col. 2, lines 23-32, col. 11, lines 36-38.

(F) As per claim 10, Schnellinger et al., teaches the error detecting/correcting on col. 5, lines 25-26.

(G) As per claim 11, Schnellinger et al. teaches the steps for storing of set of routing rules, for comparing the medical image data to the set of routing rules and for selecting the route based on the comparison. (Schellinger et al., col. 3, lines 25-30, col. 4, lines 42-44, col. 6, lines 7-9, lines 42-43, col. 4, lines 25-26, col. 5, lines 1-4.)

(H) As per claims 12, 13, 19, Schnellinger et al. teaches the mapping or comparison of element structures in an ACR-NEMA image message, and utilizes rules and data within routing information, which is a form of comparing AENAME defined within the

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routing information and network, to route medical information within the imaging network, on col. 4, lines 25-26, lines 42-44, col. 3, lines 25-30, col. 6, lines 7-9, lines 42-43.

3. Claims 3,17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schnellinger et al. as applied to claims 1, 12 above, and further in view of Pourjavid (USPN 5883985).

(A) As per claim 3, Schnellinger et al. teaches the transmission of messages, elements, flag and pointer on col. 6, lines 45-48, lines 55-63. Schnellinger et al. fail to expressly recite the DICOM tags and messages. However, it is within a level of ordinary skill in the art to select a type of protocol, such as DICOM, for transmitting packet, as evidenced by Pourjavid. (Pourjavid, col. 3, lines 17-19.) It would have been obvious to one having ordinary skill in the art at the time of the invention to include DICOM protocol with the motivation of conforming to common practice in communication technology. (Pourjavid, col. 3, lines 17-19.)

(B) As per claim 17, Schnellinger teaches the storing, retrieving, previewing, adjusting, manipulating and viewing modified image information on col. 11, lines 46-50. In addition, Pourjavid teaches image transmission system wherein corrected image(s) are displayed on a diagnosis view station. (Pourjavid, col. 5, lines 5-14, lines 50-58, col. 6, lines 11-16.) It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to include correction of image with the motivation of producing image of optimum contrast. (Pourjavid, col. 4, lines 9-10)

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4. Claims 6, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schnellinger et al. as applied to claims 1, 11 above, and further in view of De LaHuerga (US 2002/0116509).

(A) As per claims 6, 16, Schnellinger teaches the correction on col. 11, lines 46-50, but fail to expressly recite the timestamp function. This, however, is well known in the art as evidenced by De La Huerga. De La Huerga teaches the packet information units having patient ID, target addresses, information or contents, date and time information on page 11, paragraph 0146, page 12, paragraph 0151 wherein the user can access and re-access the information unit for modifications using a tool such as pull down window (i.e. operator). See De La Huerga, page 7, paragraph 0081, page 18, paragraph 0221. It would have been obvious to one having ordinary skill in the art at the time of the invention to include a time stamping function with the motivation of keeping record of modifications for verification. (De La Huerga, page 3, paragraph 0027.)

5. Claims 4,5,14,15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schnellinger et al. as applied to claims 1, 11 above, and further in view of Zandi et al. (USPN 6,195,465).

(A) As per claims 4, 5,14,15, Schnellinger et al. does not recite thumbnail data. This, however, is well known as evidenced by Zandi et al. Zandi et al. discloses a image compression/decompression for transmitting large amount of image data including thumbnails and low resolution version for displaying image. (Zandi, col. 46, lines 32-35; col. 8, lines 8-11) It would have been obvious to one having ordinary skill in the art at

the time of the invention to include thumbnails and low resolution with the motivation of facilitating the browsing of displayed image. (Zandi et al. col. 48, lines 8-11.)

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schnellinger et al. as applied to claim 1 above and further in view of Booth et al. (USPN 6065073).

(A) As per claim 7, Schnellinger teaches error checking on col. 5, lines 25-26. Schnellinger et al fails to recite cyclical redundancy check (CRC). This, however, is well known as evidenced by Booth et al. Booth et al discloses a packet transmitting method including cyclical redundancy checking. Booth et al. col. 3, lines 1-2. It would have been obvious to one having ordinary skill in the art at the time of the invention to include a cyclical redundancy check function with the motivations of conforming to standard practice and of improving reliability. (Booth et al. col. 7, lines 65-67)

(10) Response to Argument

A) The Appellant argues the prima facie case of obviousness, and states that the term "patch data," as recited in claim 1, is not addressed by the current rejection. Furthermore, Appellant argues that "patch data" Schnellinger that does not disclose "patch data" as "defined" in the specification on page 15, lines 24 -page 16, line 5.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., modifications and revision history including the date and time of a change) are not

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recited in the rejected claim(s), specifically claim 1. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As explained in the rejection of claim 1, Schnellinger et al. does not expressly recite *data structures* that store patch data including modifications to the medical imaging information and error detecting/correcting information.

However, Schnellinger et al., does disclose on col. 5, lines 25-26, lines that the system includes security and error checking functions, and allows for the compression and decompression of images, and on col. 11, lines 46-50 that image information can be previewed, adjusted, manipulated and composed. As such, it is readily apparent that *data structures* for patch data and error detecting/correcting are necessary for carrying these functions. It would have been obvious to one having ordinary skill in the art at the time of the invention to include stored data structures for data modification and error detecting/correcting information with the motivation of increasing the security and reliability of the system. (Schnellinger et al., col. 5, lines 25-26.)

Furthermore, while the Examiner recognizes that an applicant is allowed to be his/her own lexicographer and may rebut the interpretation of a term, the inventor must provide definitions "with reasonable clarity, deliberateness, and precision." MPEP 2111.01: See *In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994) (inventor may define specific terms used to describe invention, but must do so "with reasonable clarity, deliberateness, and precision" and, if done, must "set out his

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uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change" in meaning) (quoting *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1387-88, 21 USPQ2d 1383, 1386 (Fed. Cir. 1992)). Exemplification is not considered an explicit definition.

The Examiner submits that the Appellant's discussion of the term "patch data" in the specification is not in fact an explicit definition. To underscore the point that the Appellant has not provided a clear, deliberate and precise definition for the term "patch data" in the specification, one may look to claim 6.

Dependent claim 6, does recite that patch data includes revision history having data, time, and associated operator. As explained in the rejection of claim 6 (and similarly worded claim 16) Schnellinger does not disclose this, but the concept of keeping a record of modifications including time stamping is well known as suggested by De La Huerga.

A clear definition of the term "patch data" in the specification as data which necessarily included all image modifications and revision history data would have negated the need for dependent claim 6. Therefore, it is clear from claim 6 that the limitations/features which applicant argues regarding the patch data are not required features. The limitations of claim 1 as recited have been addressed, and the current rejection of claim 1 should be upheld.

(B) Appellant argues that the Examiner has relied improperly on inherency in claim 1 regarding the presence on the 4th and 5th structures in claim 1.

In response, claim 1 is an "obviousness" rejection, and not an anticipated rejection. Therefore, the examiner has not relied upon inherency, but the logic and reasoning of one of ordinary skill in the art to address shortcomings in the prior art.

Schnellinger et al., however, discloses teaches on col. 5, lines 25-26, lines that the system includes security and error checking functions, allows for the compression and decompression of images, and on col. 11, lines 46-50 that image information can be previewed, adjusted, manipulated and composed.

Schnellinger et al. does not expressly recite (fourth and fifth) *data structures* that store patch data including modifications to the medical imaging information and error detecting/correcting information. However, insofar as the functions are carried out in the reference, the rejection reasons that it would have been obvious to one having ordinary skill in the art at the time of the invention to include stored data structures for data modification and error detecting/correcting information with the motivation of increasing the security and reliability of the system. (Schnellinger et al., col. 5, lines 25-26.)

(C) Regarding claim 2, Appellant's arguments are addressed by paragraphs 10 (A) and 10(B) of the Examiner's Answer.

(D) Regarding claim 8, Appellant argues that the "patch data" does not include modifications to medication images as well as revision history data. Appellant further argues that the Examiner has improperly relied upon "inherency" in rejecting claim 8.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., patch data includes modifications and revision history including the date and time of a change) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Furthermore, while the Examiner recognizes that an applicant is allowed to be his/her own lexicographer and may rebut the interpretation of a term, the inventor must provide definitions "with reasonable clarity, deliberateness, and precision." MPEP 2111.01: See *In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994) (inventor may define specific terms used to describe invention, but must do so "with reasonable clarity, deliberateness, and precision" and, if done, must "set out his uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change" in meaning) (quoting *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1387-88, 21 USPQ2d 1383, 1386 (Fed. Cir. 1992)). Exemplification is not considered an explicit definition.

The Examiner submits that the Appellant's discussion of the term "patch data" in the specification is not in fact an explicit definition. To underscore the point that the Appellant has not provided a clear, deliberate and precise definition for the term "patch data" in the specification, one may look to claim 6.

A clear definition of the term "patch data" in the specification as data which necessarily included all image modifications and revision history data would have

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negated the need for dependent claim 6. Therefore, it is clear from claim 6 that the limitations/features, which the Appellant argues as being essential to the patch data (in claim 1), are not required features.

In response to the inherency arguments regarding the present claim, claim 8 is an "obviousness" rejection, and not an anticipated rejection. Therefore, the examiner has not relied upon inherency, but the logic and reasoning of one of ordinary skill in the art to address shortcomings in the prior art.

As explained in the rejection of claim 8, Schnellinger et al. does not expressly recite the receiving of data structures that store patch data including modifications to the medical imaging information.

However, Schnellinger et al., does teaches on col. 11, lines 46-50 that image information can be stored, retrieved, previewed, adjusted, manipulated and composed. As such, it would have been obvious to one having ordinary skill in the art at the time of the invention to include the receiving of patch data having modifications of image information with the motivation of providing tool for adjusting and manipulating the image data. (Schnellinger et al., col. 11, lines 46-50.)

(E) Regarding claims 9 and 11-13, the arguments for these claims are addressed by the Examiner's response to arguments regarding claim 8 in paragraph 10(D) in this Examiner's Answer.

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(F) Regarding claim 10, the Appellant argues that Schnellinger does not disclose the storage of errors found or the storage of correction information.

In response, Schnellinger et al., teaches error detecting/correcting on col. 5, lines 25-26. The reference states that the system provides compression, expansion, error checking and temporary storage. Schnellinger goes on to state that the MIG is configurable to facilitate the transfer of image data, and that disk space and processing speed are altered if required. Insofar the system operates the minimize human intervention in the transfer of imaging data (col 3, lines 23-31), the Examiner understands this altering of speed, compression and expansion to be forms of error detection and correction.

(H) The arguments regarding claims 14-19 are addressed by the Examiner's response to the arguments regarding claim 8, in paragraph 10 (D) of this Examiner's Answer.

(I) The arguments regarding claims 3-6 are addressed by the Examiner's response to the arguments regarding claim 1, in paragraph 10 (A) of this Examiner's Answer.

(J) Appellant argues that Booth fails to correct the deficiencies of Schnellinger in the rejection of claim 7.

Claim 7 recites "the error detection and correction information comprises a cyclical redundancy check (CRC)". The use of CRC is well known in the art as evidenced by Booth et al (6065073), as explained in the rejection of claim 7 under the combination of Schnellinger et al and Booth et al.

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Moreover, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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